



# Small Business Program Impact Evaluation Report

Energy Efficiency Plan: Program Year 2025  
(01/01/2025-12/31/2025)

**Prepared for:**

**Nicor Gas Company**



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# 1 Introduction

This report presents the results of the impact evaluation of the Nicor Gas 2025 Small Business Energy Efficiency Program (SBEEP). It presents a summary of the energy impacts for the total program and broken out by relevant measure and program structure details. Appendix A presents the impact analysis methodology. Appendix B presents the Total Resource Cost (TRC) cost-effectiveness analysis inputs. Program year 2025 covers January 1 to December 31, 2025.

# 2 Program Description

The program had 256 participants in 2025 and completed 283 projects as shown in Table 1.

**Table 1. 2025 Volumetric Findings Detail**

Participation	Direct Install	Prescriptive	Custom	Total
<b>Private Sector</b>				
Participants *	33	207	5	245
Installed Projects †	45	221	5	271
Measure Types Installed ‡	4	14	2	20
<b>Public Sector</b>				
Participants *	10		1	11
Installed Projects †	11		1	12
Measure Types Installed ‡	2		1	3
<b>Program 2025 Total</b>				
Participants *	43	207	6	256
Installed Projects †	56	221	6	283
Measure Types Installed ‡	6	14	3	23

\* Participants are defined as unique site addresses. Totals exclude duplicate addresses to avoid double counting.

† Installed Projects are defined as unique project IDs.

‡ Measure types are defined as unique measures implemented by the program.

Source: Nicor Gas tracking data and evaluation team analysis.

Table 2 summarizes the installed measure quantities that are the basis for verified energy savings.

**Table 2. 2025 Installed Measure Quantities**

Program Category	Program Path	Measure	Quantity Unit	Installed Quantity
Private	Direct Install (DI)	Faucet Aerators - Bath - DI	Unit	271
		Low Flow Shower Heads - DI	Unit	36
		Spray Valve (Med Sized Restaurants)-DI	Unit	3
		Spray Valve (Small Restaurants)-DI	Unit	3
	Prescriptive (Px)	Boiler Tune Up, Process	Unit	5
		Boiler Tune Up, Space Heating	Unit	5
		Condensing Boilers, >90%	Unit	1
		Fryer - E >50%	Unit	5

Program Category	Program Path	Measure	Quantity Unit	Installed Quantity	
Public		Furnace, >92% AFUE	Unit	4	
		Furnace, >95% AFUE	Unit	24	
		Grain Dryer Tune-up	Unit	16	
		Infrared Heaters	Unit	6	
		Outdoor Pool Covers	Unit	1	
		Ozone Laundry	Unit	1	
		Small Commercial Thermostat	Unit	7	
		Steam Trap, Commercial	Unit	76	
		Steam Trap, Dry Cleaner	Unit	1,265	
		Tankless Water Heater, Commercial	Unit	9	
		Custom	Custom > 7,500 therms	Unit	1
		Custom	Custom 2,500-7,500 therms	Unit	4
		Direct Install (DI)	Faucet Aerators - Bath - DI	Unit	69
	Direct Install (DI)	Spray Valve (Small Restaurants)-DI	Unit	1	
	Custom	Custom 2,500-7,500 therms	Unit	1	

Source: Nicor Gas tracking data and evaluation team analysis.

### 3 Program Savings Detail

Table 3 summarizes the energy savings the SBEEP achieved by path in 2025.

**Table 3. 2025 Annual Energy Savings Summary**

Program Category	Program Path	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
Private, Non-Disadvantaged Communities	Direct Install	1,844	100%	1,844	0.96	1,770
	Prescriptive	1,005,305	102%	1,023,380	0.96	982,542
	Custom	11,500	100%	11,448	0.96	10,990
<b>Private, Non-DAC Subtotal</b>		<b>1,018,648</b>	<b>102%</b>	<b>1,036,671</b>	<b>0.96</b>	<b>995,302</b>
Private, Disadvantaged Communities	Direct Install	1,256	100%	1,256	1.00	1,256
	Prescriptive	92,308	101%	92,857	1.00	92,857
<b>Private, DAC Subtotal</b>		<b>93,564</b>	<b>101%</b>	<b>94,114</b>	<b>1.00</b>	<b>94,114</b>
Public, Non-Disadvantaged Communities	Direct Install	139	100%	139	0.96	133
	Custom	873	100%	873	0.96	838
<b>Public, Non-DAC Subtotal</b>		<b>1,012</b>	<b>100%</b>	<b>1,012</b>	<b>0.96</b>	<b>972</b>
Public, Disadvantaged Communities	Direct Install	332	100%	332	1.00	332
	Prescriptive	-	-	-	-	-
<b>Public, DAC Subtotal</b>		<b>332</b>	<b>100%</b>	<b>332</b>	<b>1.00</b>	<b>332</b>

Program Category	Program Path	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
<b>Total</b>		<b>1,113,556</b>	<b>102%</b>	<b>1,132,129</b>		<b>1,090,719</b>

Note: Savings and realization rates presented in this table are rounded and may not sum precisely to the total.

\* Realization Rate (RR) is the ratio of verified gross savings to ex ante gross savings, based on evaluation research findings.

† NTG, Net to Gross is the deemed value available on the SAG website: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2025/>. Based on SAG Policy, participants in DAC, based on their census tract and with consumption under 35,000 Therms are assigned a NTG of 1.00.

Source: Evaluation team analysis.

## 4 Program Savings by Measure

The program includes 31 measures as shown in the following table. The Steam Trap, Dry Cleaners and Grain Dryer Tune-Up measures contributed the most savings. The Steam Trap, Dry Cleaners measure was 88.4% of gross verified savings. Table 4 shows the annual savings for each measure.

**Table 4. 2025 Annual Energy Savings by Measure**

Program Category	Program Path	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
Private, Non-DAC	DI	Faucet Aerators - Bath - DI	745	100%	745	0.96	716
	DI	Low Flow Shower Heads - DI	386	100%	386	0.96	371
	DI	Spray Valve (Med Sized Restaurants)-DI	475	100%	475	0.96	456
	DI	Spray Valve (Small Restaurants)-DI	237	100%	237	0.96	228
	Px	Boiler Tune Up, Process	19,479	100%	19,479	0.96	18,699
	Px	Boiler Tune Up, Space Heating	6,229	100%	6,240	0.96	5,991
	Px	Condensing Boilers, >90%	265	100%	265	0.96	254
	Px	Fryer - E >50%	3,078	100%	3,077	0.96	2,954
	Px	Furnace, >92% AFUE	1,586	100%	1,586	0.96	1,522
	Px	Furnace, >95% AFUE	4,122	100%	4,119	0.96	3,955
	Px	Grain Dryer Tune-up	43,744	125%	54,816	0.96	52,624
	Px	Infrared Heaters	1,251	100%	1,251	0.96	1,201
	Px	Outdoor Pool Covers	1,183	100%	1,183	0.96	1,135
	Px	Small Commercial Thermostat	155	100%	155	0.98	152
	Px	Steam Trap, Commercial	8,037	105%	8,407	0.96	8,071
	Px	Steam Trap, Dry Cleaner	916,101	101%	922,451	0.96	885,648
	Px	Tankless Water Heater, Commercial	76	464%	350	0.96	336

Program Category	Program Path	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
	Custom	Custom > 7,500 therms	9,453	100%	9,453	0.96	9,075
	Custom	Custom 2,500-7,500 therms	2,047	97%	1,994	0.96	1,915
<b>Private, Non-DAC Subtotal</b>			<b>1,018,648</b>	<b>102%</b>	<b>1,036,671</b>	<b>0.96</b>	<b>995,302</b>
Private, DAC	DI	Faucet Aerators - Bath - DI	623	100%	623	1.00	623
	DI	Spray Valve (Med Sized Restaurants)-DI	237	100%	237	1.00	237
	DI	Spray Valve (Small Restaurants)-DI	396	100%	396	1.00	396
	Px	Furnace, >95% AFUE	2,728	101%	2,740	1.00	2,740
	Px	Infrared Heaters	513	100%	513	1.00	513
	Px	Ozone Laundry	10,171	100%	10,168	1.00	10,168
	Px	Small Commercial Thermostat	808	100%	808	1.00	808
	Px	Steam Trap, Dry Cleaner	78,088	101%	78,629	1.00	78,629
<b>Private, DAC Subtotal</b>			<b>93,564</b>	<b>101%</b>	<b>94,114</b>	<b>1.00</b>	<b>94,114</b>
Public, Non-DAC	DI	Faucet Aerators - Bath - DI	139	100%	139	0.96	133
	Custom	Custom 2,500-7,500 therms	873	100%	873	0.96	838
<b>Public, Non-DAC Subtotal</b>			<b>1,012</b>	<b>100%</b>	<b>1,012</b>	<b>0.96</b>	<b>972</b>
Public, DAC	DI	Faucet Aerators - Bath - DI	95	100%	95	1.00	95
	DI	Spray Valve (Small Restaurants)-DI	237	100%	237	1.00	237
<b>Public, DAC Subtotal</b>			<b>332</b>	<b>100%</b>	<b>332</b>	<b>1.00</b>	<b>332</b>
<b>Total</b>			<b>1,113,556</b>	<b>102%</b>	<b>1,132,129</b>		<b>1,090,719</b>

Note: Savings and realization rates presented in this table are rounded and may not sum precisely to the total.

\* Realization Rate (RR) is the ratio of verified gross savings to ex ante gross savings, based on evaluation research findings.

† NTG, Net to Gross is the deemed value available on the SAG website: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2025/>. Based on SAG Policy, participants in DAC, based on their census tract and with consumption under 35,000 Therms are assigned a NTG of 1.00.

Source: Evaluation team analysis.

## 5 Impact Analysis Findings and Recommendations

### 5.1 Impact Parameter Estimates

Table 5 shows the unit therm savings and realization rate findings by measure from our review. The realization rate is the ratio of the verified savings to the ex ante savings. Following the table, we provide findings and recommendations, including discussion of all measures with realization rates above or below 100%. Appendix A provides a description of the impact analysis methodology.

**Table 5. Verified Gross Savings Parameters**

Measure	Unit Basis	Ex Ante Gross (therms/unit)	Verified Gross (therms/unit)	Realization Rate	Illinois TRM, v13.0, Section
Boiler Tune Up, Process	Unit	3,896	3,896	100%	4.4.3
Boiler Tune Up, Space Heating	Unit	1,246	1,248	100%	4.4.2
Condensing Boilers, >90%	Unit	265	265	100%	4.4.10
Faucet Aerators - Bath - DI	Unit	5	5	100%	4.3.2
Fryer - E >50%	Unit	616	615	100%	4.2.7
Furnace, >92% AFUE	Unit	396	396	100%	4.4.11
Furnace, >95% AFUE	Unit	285	286	100%	4.4.11
Grain Dryer Tune-up	Unit	2,734	3,426	125%	4.1.15
Infrared Heaters	Unit	294	294	100%	4.4.12
Low Flow Shower Heads - DI	Unit	11	11	100%	4.3.3
Outdoor Pool Covers	Unit	1,183	1,183	100%	4.3.4
Ozone Laundry	Unit	10,171	10,168	100%	4.3.6
Small Commercial Thermostat	Unit	138	138	100%	4.4.48
Spray Valve (Med Sized Restaurants)-Unit DI	Unit	237	237	100%	4.2.11
Spray Valve (Small Restaurants)-DI	Unit	218	218	100%	4.2.11
Steam Trap, Commercial	Unit	106	111	105%	4.4.16
Steam Trap, Dry Cleaner	Unit	786	791	101%	4.4.16

Measure	Unit Basis	Ex Ante Gross (therms/unit)	Verified Gross (therms/unit)	Realization Rate	Illinois TRM, v13.0, Section
Tankless Water Heater, Commercial	Unit	8	39	464%	4.3.1
Custom Measures		10,037	10,027	100%	Project File Review†

\* State of Illinois Technical Reference Manual version 13.0 from <http://www.ilsag.info/technical-reference-manual.html>.

† Project files and monthly billing data provided by Nicor Gas.

Source: Evaluation team analysis.

## 5.2 Findings and Recommendations

**Finding 1.** For the boiler tuneup process measure, the evaluation noted significantly different ex ante values for the same boiler characteristics. For example, one project had three boilers with gross realization rates of 100%, 38%, and 260% (i.e., EA-0003475323). The reported ex ante gross savings appeared to have been reversed for the two above cases. A verified gross realization of 100% would have been calculated if the data was entered correctly. For the boiler tune-up space heating measure, different ex ante values were calculated for boilers with comparable characteristics. The ex ante energy savings calculation is very sensitive to the difference between pre and post installation efficiency. It appears that an incorrect delta boiler efficiency value may have been used in the calculation.

**Recommendation 1.** Ensure that ex ante saving values are correctly applied to the appropriate boiler. Review the ex ante input calculations for boiler tune-up process and space heating measures to ensure consistent calculation of savings and alignment with the tracking participation data. The most recent pre-installation boiler efficiency and accurately measuring the post installation efficiency is critical for an accurate energy savings value.

**Finding 2.** For sixteen different projects, the overall gross realization rate for the Grain Dryer Tune-up measure was 125%, with a gross realization rate of 100% for three projects and 139% for the other thirteen projects. The implementor did not provide sufficient detail on the bin dryer flow type or estimated therms savings per bushel to accurately apply the IL TRM v13 therm savings calculation. Evaluation resorted to the TRM default for these parameters to calculate the verified savings. Nicor Gas provided a supplemental file after the initial evaluation report was submitted. The specific calculation methods and assumptions used in the supplemental file for the Grain Dryer Tune-up were not clear enough to establish the verification of the ex ante savings in the program tracking data.

**Recommendation 2.** Provide sufficient details on Grain Dryer equipment specifications in the tracking data to allow ready calculation of verified energy savings using the TRM. Provide supplemental measure calculators in advance, during the midyear evaluations, to avoid evaluation risk and savings adjustment during the end of year evaluations.

**Finding 3.** The evaluation team calculated a gross realization rate of 105% for all three steam trap commercial projects using the IL TRM v13 calculator and data tracking variables provided. Nicor Gas

provided a supplemental calculator for Steam Traps after the initial evaluation report was submitted. The calculation method appears to be similar to the IL TRM v13 but using the inputs produce differences in realization rates when compared to the program tracking data.

**Recommendation 3.** Review the ex ante calculation for the steam trap commercial measure to identify the source of the difference in the per unit savings estimates between program tracking database and other supplemental files that feed into the tracking system.

**Finding 4.** For the Tankless Water Heater measure, the evaluation team calculated an overall gross realization rate of 464% for nine projects using IL TRM v13 default input values. The evaluation team calculated a gross realization of 99% for one project, 814% was calculated for four of the projects, and 847% for four other projects). Nicor Gas provided a supplemental calculator for Tankless Water Heater savings, but the specific calculation methods and assumptions were not clear enough to enable the verification of the ex ante in the program tracking data.

**Recommendation 4.** Ensure input parameters provided in the tracking database align with the ex ante calculations and be consistent when a TRM default or custom inputs are applied. Provide supplemental measure calculators in advance to avoid evaluation risk and savings adjustment during the end of year evaluations.

## Appendix A. Impact Analysis Methodology

The evaluation team determined verified gross savings for each program measure by:

- Reviewing the savings algorithm inputs in the final 2025 participation data for agreement with the IL-TRM v13.0 and IL-TRM Errata, where applicable.
- Validating the savings algorithm was applied correctly.
- Multiplying the verified per-unit savings value by the quantity reported in the tracking data. The team calculated verified net savings by multiplying the verified gross savings estimates by an NTG ratio. In 2025, NTG estimates used to calculate the net verified savings were based on past evaluation research and defined by a consensus process through the Illinois SAG.
- For SBEEP projects in DAC zones, the evaluation assigned a NTG 1.00.
- For the custom projects the evaluation team performed in-depth application review to assess the engineering methods, parameters and assumptions used to generate all ex ante impact estimates and determined the verified gross savings.

## Appendix B. Program Specific Inputs for the Illinois TRC

Table 6 shows the Total Resource Cost (TRC) cost-effectiveness analysis inputs available at the time of producing this impact evaluation report. Additional required cost data (e.g., measure costs, program level incentive and non-incentive costs) are not included in this table and will be provided to the evaluation team later. Guidehouse will include annual and lifetime water savings and greenhouse gas reductions in the end of year summary report.

**Table 6. Verified Cost Effectiveness Inputs**

Program Category	Program Path	Savings Category	DAC Project*	Units	Quantity	Effective Useful Life	Early Replacement Flag	Verified Gross Annual Water Savings (Gallons)	Ex Ante Gross Savings (Therms)	Verified Gross Savings (Therms)	Verified Net Savings (Therms)
Private	Direct Install	Faucet Aerators - Bath	FALSE	Unit	179	10.00	NO	169,415	745	745	716
Private	Direct Install	Low Flow Shower Heads	FALSE	Unit	36	10.00	NO		386	386	371
Private	Direct Install	Spray Valve (Med Sized Restaurants)	FALSE	Unit	2	5.00	NO	65,146	475	475	456
Private	Direct Install	Spray Valve (Small Restaurants)	FALSE	Unit	1	5.00	NO	32,573	237	237	228
Private	Direct Install	Faucet Aerators - Bath	TRUE	Unit	92	10.00	NO	141,618	623	623	623
Private	Direct Install	Spray Valve (Med Sized Restaurants)	TRUE	Unit	1	5.00	NO	32,573	237	237	237
Private	Direct Install	Spray Valve (Small Restaurants)	TRUE	Unit	2	5.00	NO	54,288	396	396	396
Private	Prescriptive	Boiler Tune Up, Process	FALSE	Unit	5	2.00	NO		19,479	19,479	18,699

Program Category	Program Path	Savings Category	DAC Project*	Units	Quantity	Effective Useful Life	Replacement Flag	Early Replacement Flag	Verified Gross Annual Water Savings (Gallons)	Ex Ante Gross Savings (Therms)	Verified Gross Savings (Therms)	Verified Net Savings (Therms)
Private	Prescriptive	Boiler Tune Up, Space Heating	FALSE	Unit	5	3.00		NO		6,229	6,240	5,991
Private	Prescriptive	Condensing Boilers, >90%	FALSE	Unit	1	25.00		NO		265	265	254
Private	Prescriptive	Fryer - E >50%	FALSE	Unit	5	12.00		NO		3,078	3,077	2,954
Private	Prescriptive	Furnace, >92% AFUE	FALSE	Unit	4	16.00		NO		1,586	1,586	1,522
Private	Prescriptive	Furnace, >95% AFUE	FALSE	Unit	15	16.00		NO		4,122	4,119	3,955
Private	Prescriptive	Grain Dryer Tune-up	FALSE	Unit	16	1.00		NO		43,744	54,816	52,624
Private	Prescriptive	Infrared Heaters	FALSE	Unit	4	15.00		NO		1,251	1,251	1,201
Private	Prescriptive	Outdoor Pool Covers	FALSE	Unit	1	6.00		NO		1,183	1,183	1,135
Private	Prescriptive	Small Commercial Thermostat	FALSE	Unit	1	11.00		NO		155	155	152
Private	Prescriptive	Steam Trap, Commercial	FALSE	Unit	76	6.00		NO	72,357	8,037	8,407	8,071
Private	Prescriptive	Steam Trap, Dry Cleaner	FALSE	Unit	1168	6.00		NO	7,691,936	916,101	922,451	885,648
Private	Prescriptive	Tankless Water Heater, Commercial	FALSE	Unit	9	20.00		NO		76	350	336
Private	Prescriptive	Furnace, >95% AFUE	TRUE	Unit	9	16.00		NO		2,728	2,740	2,740
Private	Prescriptive	Infrared Heaters	TRUE	Unit	2	15.00		NO		513	513	513
Private	Prescriptive	Ozone Laundry	TRUE	Unit	1	10.00		NO		10,171	10,168	10,168

Program Category	Program Path	Savings Category	DAC Project*	Units	Quantity	Effective Useful Life	Early Replacement Flag	Verified Gross Annual Water Savings (Gallons)	Ex Ante Gross Savings (Therms)	Verified Gross Savings (Therms)	Verified Net Savings (Therms)
Private	Prescriptive	Small Commercial Thermostat	TRUE	Unit	6	11.00	NO		808	808	808
Private	Prescriptive	Steam Trap, Dry Cleaner	TRUE	Unit	97	6.00	NO	655,655	78,088	78,629	78,629
Private	Custom	Custom 2,500-7,500 therms	FALSE	Unit	4	15.00	NO		2,047	1,994	1,915
Private	Custom	Custom > 7,500 therms	FALSE	Unit	1	15.00	NO		9,453	9,453	9,075
Public	Direct Install	Faucet Aerators - Bath	FALSE	Unit	41	10.00	NO	31,524	139	139	133
Public	Direct Install	Faucet Aerators - Bath	TRUE	Unit	28	10.00	NO	21,529	95	95	95
Public	Direct Install	Spray Valve (Small Restaurants)	TRUE	Unit	1	5.00	NO	32,573	237	237	237
Public	Custom	Custom 2,500-7,500 therms	FALSE	Unit	1	15.00	NO		873	873	838
<b>Total or Weighted Average</b>						<b>5.93</b>		<b>9,001,187</b>	<b>1,113,556</b>	<b>1,132,129</b>	<b>1,090,719</b>

Source: Evaluation team analysis.